

Attorney Docket No.: DRE-0067
Inventors: Laurencin et al.
Serial No.: 10/052,121
Filing Date: January 17, 2002
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This listing of the claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claim 1: (currently amended) A scaffold for tissue engineering comprising biocompatible, biodegradable polymer-based, ~~lighter than water or light as water~~ hollow microcarriers with a density equal to or less than water bonded together into an interconnected, three dimensional scaffold.

Claim 2: (original) The scaffold of claim 1 which is seeded with cells via culturing in vitro in a rotating bioreactor.

Claim 3: (currently amended) The scaffold of claim 2 wherein the seed cells comprise osteoblast ~~and osteoblast-like~~ cells, endocrine cells, fibroblasts, endothelial cells, genitourinary cells, lymphatic vessel cells, pancreatic islet cells, hepatocytes, muscle cells, intestinal cells, kidney cells, blood vessel cells, thyroid cells, parathyroid cells, cells of the adrenal-hypothalamic pituitary axis, bile duct cells, ovarian or testicular cells, salivary secretory cells, renal cells, chondrocytes, epithelial cells, nerve cells or progenitor cells.

Claim 4: (canceled)

Claim 5: (original) A method for regenerating a selected tissue comprising seeding the scaffold of claim 1 with cells

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which generate the selected tissue and culturing the scaffold and seeded cells in a rotating bioreactor.

Claim 6: (currently amended) The method of claim 5 wherein the seed cells comprise ~~seed cells comprise~~ osteoblast and ~~osteoblast-like~~ cells, endocrine cells, fibroblasts, endothelial cells, genitourinary cells, lymphatic vessel cells, pancreatic islet cells, hepatocytes, muscle cells, intestinal cells, kidney cells, blood vessel cells, thyroid cells, parathyroid cells, cells of the adrenal-hypothalamic pituitary axis, bile duct cells, ovarian or testicular cells, salivary secretory cells, renal cells, chondrocytes, epithelial cells, nerve cells or progenitor cells.